



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,818	02/28/2005	Richard Schaer	F-8388	8344
28107	7590	03/31/2006	EXAMINER	
JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			NICHOLSON III, LESLIE AUGUST	
			ART UNIT	PAPER NUMBER
			3651	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/509,818	SCHAER ET AL.	
	Examiner	Art Unit	
	Leslie A. Nicholson III	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/28/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <p>✓ 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>✓ 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date <u>9/30/04</u></p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|--|---|

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cylindrical chamber, mixing chamber, and residence chamber (at least claim 1, 25, and 26) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1,25, and 26 are objected to because, as provided in 37 CFR 1.75(i), each element or step of the claim should be separated by a line indentation.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 18-23 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 20-23, it is unclear from the claims and disclosure what a start is. Are the starts the quasi webs consisting of elements 8-15? The examiner will examine the claims as if they are.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

Art Unit: 3651

narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation of the conveying elements disposed 90° relative to one another, while claim 18 and 19 recites an angle equal to or greater than 180° and equal to or greater than 270°, respectively, which is the narrower statement of the range/limitation.

Regarding claim 25, because there is no depicted residence chamber or mixing chamber and because the disclosure simply states that there is one of each, does not enable the examiner to reproduce the invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "starts" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1,2,3,4,5,6,10,11,12,13,14 are rejected under 35 U.S.C. 102(b) as being anticipated by August USP 2,806,680.

August discloses a similar conveying device comprising:

- An essentially cylindrical chamber (8) having an axis (fig.3,4)
- At least one shaft (4) disposed in said chamber
- Said shaft having a plurality of first conveying elements (9,10) spaced from one another to form a discontinuous web and extending radially from the shaft and being connected with the shaft in each case at a connecting site on the surface of the shaft (fig.2)
- The individual connecting sites being disposed along a helical line at the surface of the shaft (fig.2)
- The plurality of first conveying elements forming a first flight extending helically about the surface of the shaft (fig.2)
- Further elements (11) which protrude into the first flight, disposed at least in partial region of the first flight (fig.2)

Art Unit: 3651

- Wherein the further element form at least one further, discontinuous web, which extends along and within the first flight in such a manner, that the first flight is divided into at least two partial flights at least in partial regions (fig.2)
- wherein the number of further discontinuous webs and, with that, the number of partial flights increases in the product-conveying direction (fig.2)
- wherein the regions with a larger number and regions with a smaller number of discontinuous webs follow one another in the product-conveying direction (fig.2)
- wherein the regions with an increasing number and regions with a decreasing number of discontinuous webs follow one another in the product-conveying direction (fig.2)
- wherein at least a first part of the conveying elements are paddles or beaters and a further part of the conveying elements are shaped in the form of blades (fig.2)
- wherein the number of flights in the product-conveying direction increases from one flight up to a maximum of eight flights (fig.2)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 7,8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over August USP 2,806,680 in view of Bredeson USP 3,980,013.

August discloses all the limitations of the claim (see ¶8), but does not expressly disclose the slope of the first flight increasing in the product-conveying direction.

Bredeson teaches the slope of the first flight (52) increasing in the product-conveying direction (fig.1) for the purpose of allowing space for the second flight (38) to obtain a tearing, shearing and working action of the material and to cause it to move in an axial direction so that it is eventually discharged.

At the time of invention it would have been obvious to one having ordinary skill in the art to increase the slope of the first flight in the product-conveying direction, as taught by Bredeson, in the device of August, for the purpose of allowing space for the second flight to obtain a tearing, shearing and working action of the material and to cause it to move in an axial direction so that it is eventually discharged.

11. Claims 16,17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over August USP 2,806,680 in view of Martin USP 4,467,967.

August discloses all the limitations of the claim (see ¶8), but does not expressly disclose the axially adjacent conveying elements disposed at the shaft offset by 90° relative to one another.

Martin teaches the axially adjacent conveying elements disposed at the shaft offset by 90° relative to one another for the purpose of providing a proper spacing of conveying elements to convey material in the conveying direction (C5/L13-34).

At the time of invention it would have been obvious to one having ordinary skill in the art to have the axially adjacent conveying elements disposed at the shaft offset by

Art Unit: 3651

90° relative to one another, as taught by Martin, in the device of August, for the purpose of providing a proper spacing of conveying elements to convey material in the conveying direction.

12. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over August USP 2,806,680 in view of Yoshida EP 1084808 A1.

August discloses all the limitations of the claim (see ¶8), but does not expressly disclose the number of starts increasing in the product-conveying direction wherein the number of starts doubles from a first axial section to a second axial section downstream in the product-conveying direction and wherein the number of starts at the shaft increases in each case by one flight in the downstream direction.

Yoshida teaches the number of starts increasing in the product-conveying direction wherein the number of starts doubles from a first axial section to a second axial section downstream in the product-conveying direction and wherein the number of starts at the shaft increases in each case by one flight in the downstream direction (fig.1) for the purpose of further mixing and scraping out the mixture to the discharge opening (C3/L28-37).

At the time of invention it would have been obvious to one having ordinary skill in the art to have the number of starts increasing in the product-conveying direction wherein the number of starts doubles from a first axial section to a second axial section downstream in the product-conveying direction and wherein the number of starts at the shaft increases in each case by one flight in the downstream direction, as taught by

Art Unit: 3651

Yoshida, in the device of August, for the purpose of further mixing and scraping out the mixture to the discharge opening.

Conclusion

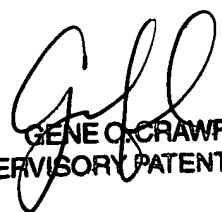
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie A. Nicholson III whose telephone number is 571-272-5487. The examiner can normally be reached on M-F, 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on 571-272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

L.N.
3/28/2006


GENE C. CRAWFORD
SUPERVISORY PATENT EXAMINER